

1. Title of the Invention

Liquid Crystal Display Cell

2. Claims

1. A liquid crystal display cell formed by a method comprising the steps of:

carrying out a level alignment layer treatment in a direction against a first glass substrate;

carrying out the level alignment layer treatment in a direction different from the level alignment layer treatment direction for said first glass substrate against a second glass substrate;

wherein said first and second glass substrates have enough widths to form a plurality of digits of display units in a direction perpendicular to longitudinal directions of said first and second substrates, and

wherein one of said glass substrates is formed to be wider in width than the other glass substrate;

making said first and second glass substrates coincide in longitudinal direction;

superposing and bonding said first and second glass substrates with extended portions of said one glass substrate, which extend in a direction of the width of the substrate, positioned to protrude on one side in the direction of the width thereof; and

cutting then the resultant first and second glass substrates in a direction perpendicular to the longitudinal direction of the substrates to form individual liquid crystal cells.

2. The liquid crystal display cell according to claim 1, wherein the method further comprises the steps of:

disposing liquid crystal injection openings in edge portions opposite to edge portions, where said extended portions are positioned, in the direction of the width of the superposed and bonded first and second glass substrates corresponding to the respective liquid crystal cells;

filling a liquid crystal through the liquid crystal injection openings; and

thereafter, cutting the superposed first and second glass substrates in the direction perpendicular to the longitudinal direction of the glass substrates to form individual liquid crystal cells.

An arrangement of a landscape liquid crystal cell according to the invention is suitable for the mass production through an automatic continuous process. Further, such arrangement allows many liquid crystal display cells to be treated at a time even when manual works are required. Therefore, the invention has great industrial value in that the production

is simplified significantly.

#### 4. Brief Description of the Drawings

Fig. 1 is an illustration showing a liquid crystal of a twisted nematic alignment.

Figs. 2A, 2B, 2C, and 2D are illustrations showing steps of a rubbing treatment.

Figs. 3A, 3B, and 3C are illustrations showing various rubbing directions.

Figs. 3D and 3E are illustrations for explaining Fig. 3B more concretely.

Figs. 4A, 4B, 4C, and 4D are illustrations for showing a method of manufacturing a liquid crystal cell of the invention and a arrangement thereof.

21: LIQUID CRYSTAL CELL

22A, 23A: GLASS SUBSTRATE

22D: DISPLAY LEAD PORTION PROVIDED EXTENDING FROM GLASS  
SUBSTRATE 22A

21A: INJECTION PORT

24: DISPLAY UNIT